

REQUEST FOR ACCESS OF ABANDONED APPLICATION UNDER 37 CFR 1.14(a)

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In re Application of

LYMAN

Application Number

162 407

Filed

12/3/93

Group Art Unit

Examiner

Paper No.

#12

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I hereby request access under 37 CFR 1.14(a)(3)(iv) to the application file record of the above-identified ABANDONED application, which is: (CHECK ONE)

- ☐ (A) referred to in United States Patent Number 5554512, column _____
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- ☐ (C) an application that claims the benefit of the filing date of an application that is open to public inspection, i.e., Application No. _____, filed _____, or
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#12



US005554512A

United States Patent [19]
Lyman et al.

[11] **Patent Number:** **5,554,512**
[45] **Date of Patent:** **Sep. 10, 1996**

- [54] **LIGANDS FOR FLT3 RECEPTORS**
- [75] **Inventors:** **Stewart D. Lyman, Seattle; M. Patricia Beckmann, Poulsbo, both of Wash.**
- [73] **Assignee:** **Immunex Corporation**
- [21] **Appl. No.:** **243,545**
- [22] **Filed:** **May 11, 1994**

Related U.S. Application Data

- [63] **Continuation-in-part of Ser. No. 209,502, Mar. 7, 1994, abandoned, which is a continuation-in-part of Ser. No. 162,407, Dec. 3, 1993, abandoned, which is a continuation-in-part of Ser. No. 111,758, Aug. 25, 1993, abandoned, which is a continuation-in-part of Ser. No. 106,463, Aug. 12, 1993, abandoned, which is a continuation-in-part of Ser. No. 68,394, May 24, 1993, abandoned.**
- [51] **Int. Cl.⁶** **C12N 15/19; C07H 21/04**
- [52] **U.S. Cl.** **435/69.5; 435/69.1; 435/172.1; 435/240.2; 435/252.3; 435/320.1; 530/351; 530/399; 536/23.5; 935/13; 424/85.1**
- [58] **Field of Search** **536/23.5; 530/350, 530/351, 399; 435/69.1, 69.5, 69, 7, 240.2, 320.1, 172.1, 252.3; 935/13; 424/85.1**

- [56] **References Cited**
- U.S. PATENT DOCUMENTS**
- 5,185,438 2/1993 Lemischka 536/23.2
- OTHER PUBLICATIONS**
- J. G. Flanagan et al. *Cell* 63:185-194, 1990.
- O. Rosnet et al. *Oncogene* 6:1641-1650, Sep. 1991.
- Primary Examiner*—Stephen G. Walsh
Assistant Examiner—Lorraine M. Spector
Attorney, Agent, or Firm—Stephen L. Malaska

- [57] **ABSTRACT**
- Ligands for flt3 receptors capable of transducing self-renewal signals to regulate the growth, proliferation or differentiation of progenitor cells and stem cells are disclosed. The invention is directed to flt3-L as an isolated protein, the DNA encoding the flt3-L, host cells transfected with cDNAs encoding flt3-L, compositions comprising flt3-L, methods of improving gene transfer to a mammal using flt3-L, and methods of improving transplantations using flt3-L. Flt3-L finds use in treating patients with anemia, AIDS and various cancers.

21 Claims, No Drawings